

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VEM3161T**

**3HP,1765RPM,3PH,60HZ,145TC,3630M,ODP,F1**

Part Detail							
Revision:	F	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGS658	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36M655	Layout:	36LYM655	Poles:	04	Created Date:	04-27-2015
Base:	N	Eff. Date:	01-30-2018	Leads:	9#16		

Specs			
Catalog Number:	VEM3161T	Heater Indicator:	No Heater
Enclosure:	ODP	Insulation Class:	F
Frame:	145TC	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	K
Output @ Frequency:	3.000 HP @ 60 HZ	Lifting Lugs:	No Lifting Lugs
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 16 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3630M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	74
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	No Mounting	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	4.200 A @ 460.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	8.400 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	8.500 A @ 208.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	B	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	NONE (OLD)
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3553LUA</b>										
<b>CAT.NO.</b>	VEM3161T									
<b>SPEC.</b>	36M655S658G1									
<b>HP</b>	3									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	8.4/4.2									
<b>RPM</b>	1765									
<b>FRAME</b>	145TC				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	K	<b>DES</b>	B		<b>CLASS</b>	F	
<b>NEMA NOM. EFF</b>	89.5		<b>PF</b>	74						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A				<b>USABLE AT 208V</b>					8.5
<b>DE</b>	6306				<b>ODE</b>	6205				
<b>ENCL</b>	ODP		<b>SN</b>							
<b>VPWM INVERTER READY</b>										
<b>CT30-60(2:1) VT3-60(20:1)</b>										
<b>USABLE AT</b>	50HZ 3HP 190/380V 8.6/4.3A								<b>SF1.0</b>	

Parts List		
Part Number	Description	Quantity
SA299834	SA 36M655S658G1	1.000 EA
RA286867	RA 36M655S658G1	1.000 EA
36CB3004	36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0	1.000 EA
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
36EP3200A32	SPL FR.E.P. OPEN 36L OR M 205 BRG FOR DR	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 EA
36EP1402A25	PU EP OPEN 360 BRG, GRSR, BAFFLE, T'SLEE	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
36AD2000	AIR BAFFLE	1.000 EA
60XW0632A06	6-32 X 3/8 TORX HEAD SCREW TAPTITE II	4.000 EA
10XN2520A28	1/4-20X 1 3/4 HEX HD	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
36FH4012A01	DRIP COVER NOTCH BOTTOM, W/ PRIMER	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
36CB4516	36 LIPPED CB LID - GALVANNEAL	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
HA3101A25	THRUBOLT 1/4-20 X 11.000 OHIO ROD	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3553LUA	ALUM SUPER-E VPWM INVERTER READY UL	1.000 EA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
PK3082	STYROFOAM CRADLE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

**AC Induction Motor Performance Data**

Record # 33604 - Typical performance - not guaranteed values

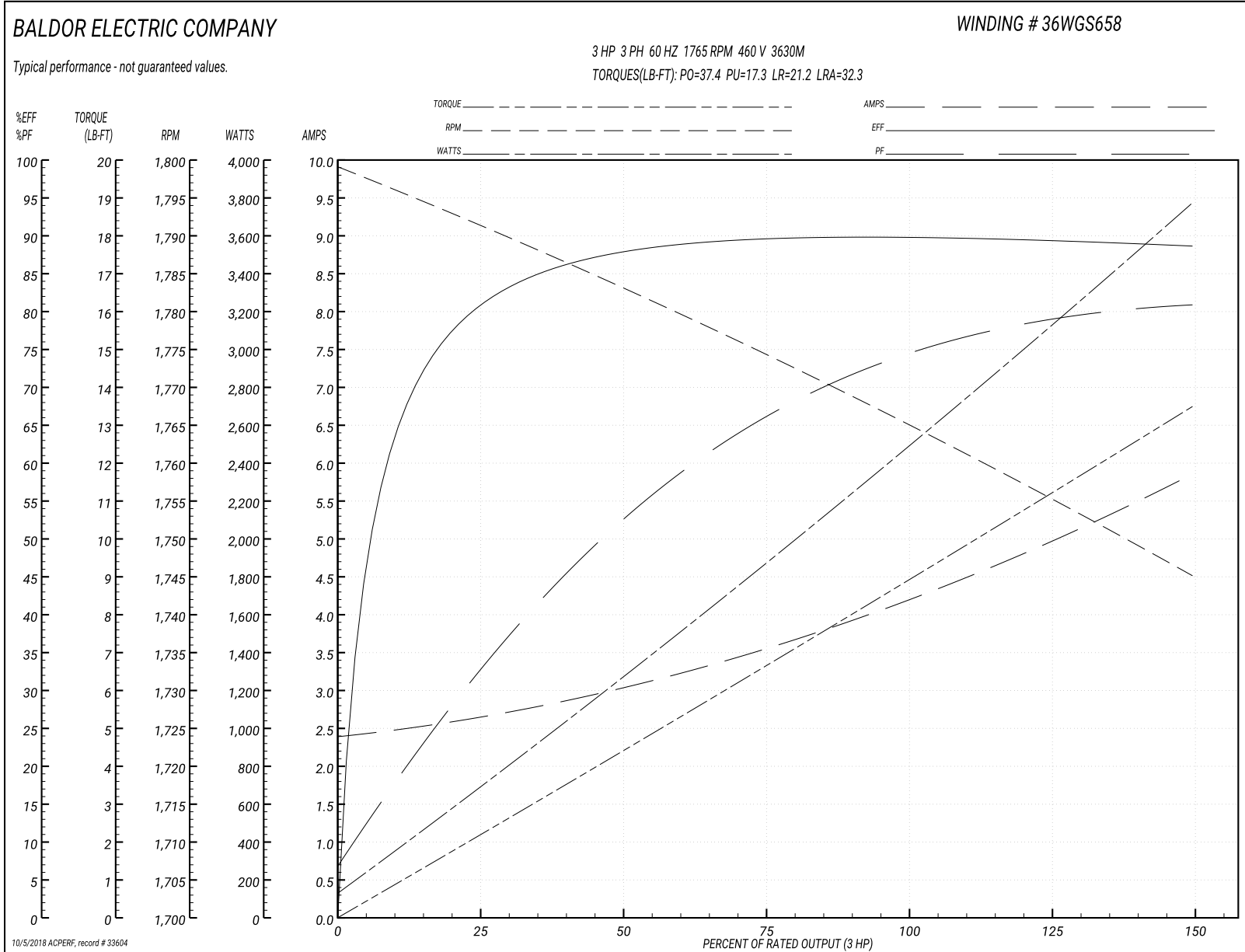
<b>Winding:</b> 36WGS658-R001	<b>Type:</b> 3630M	<b>Enclosure:</b> OPSB
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	3			Full Load Torque	8.87 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	8.4/4.2			Breakdown Torque	37.4 LB-FT
R.P.M.	1765			Pull-up Torque	17.3 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	21.2 LB-FT
NEMA Design Code	B	KVA Code	K	Starting Current	32.3 A
Service Factor (S.F.)	1.15			No-load Current	2.43 A
NEMA Nom. Eff.	89.5	Power Factor	74	Line-line Res. @ 25°C	3.8716 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	24°C
S.F. Amps				Temp. Rise @ S.F. Load	28°C
				Locked-rotor Power Factor	43
				Rotor inertia	0.279 LB-FT <sup>2</sup>

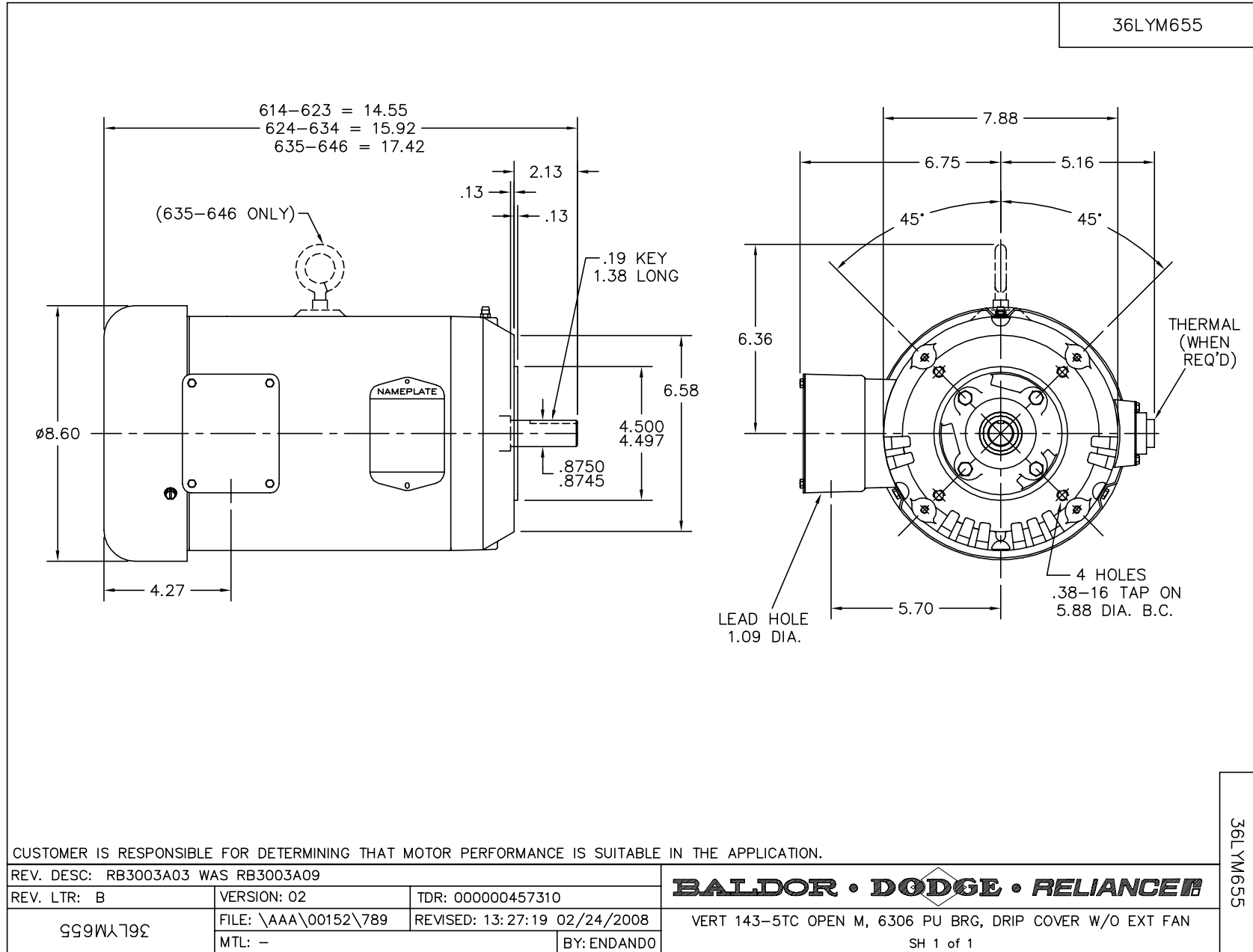
Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	53	66	73	79	81	77
Efficiency	80.2	87.5	89.5	89.7	89.5	88.7	89.6
Speed	1791.1	1783	1774.5	1765.5	1755.7	1744.8	1760
Line amperes	2.6	2.99	3.54	4.25	4.97	5.83	4.68

Performance Graph at 460V, 60Hz, 3.0HP Typical performance - Not guaranteed values







CD0005



LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005